

In re Patent Application of:
ROCHE ET AL.
Serial No. 09/995,251
Filing Date: **NOVEMBER 27, 2001**

REMARKS

Applicants would like to thank the Examiner for the thorough examination of the present application. Applicants would also like to thank the Examiner for correctly indicating as allowable the subject matter of dependent Claims 19-21, 23, 29-31, 33, 39-40 and 42.

New Claims 45-62 are being added. New independent Claim 45 is based upon independent Claim 26 and the allowable subject matter from dependent Claim 33; new independent Claim 54 is based upon independent Claim 26 and the allowable subject matter from dependent Claim 29; and new independent Claim 63 is based upon independent Claim 36 and the allowable subject matter from dependent Claim 42. The Applicants submit that new Claims 45-62 are patentable.

The arguments supporting patentability of the original claims are presented in detail below.

I. The Claims Are Patentable

The Examiner rejected independent Claims 15, 26 and 36 over the Kim patent in view of the Farnworth et al. patent. Independent Claim 15, for example, is directed to a microprocessor comprising a first terminal for receiving a mode selection signal, a second terminal for receiving a control signal, and selection means connected to the first and second terminals for selecting an operating mode of the microprocessor based upon the mode selection signal and the control signal.

The selection means comprise a counter having a counting input and a reset input, first coupling means coupling the counting input to the first terminal, and second

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coupling means coupling the reset input to the second terminal. Default means maintain by default the reset input at a first logic value for ensuring that the counter is maintained at zero in an absence of the control signal.

Independent device Claim 26 is similar to independent device Claim 15 except the "means" recitation has been replaced with "circuit." Independent method Claim 36 is similar to independent device Claim 26.

Referring now to the Kim patent, and in particular to FIG. 2, the illustrated microprocessor comprises a first terminal **RESET** for receiving a mode selection signal, a second terminal **CLK** for receiving a control signal, and selection means connected to the first and second terminals for selecting an operating mode of the microprocessor based upon the mode selection signal and the control signal. The selection means comprise a counter **COUNTER** having a counting input **CLK** and a reset input **RSTb**, first coupling means coupling the counting input to the first terminal and second coupling means coupling the reset input to the second terminal.

As correctly noted by the Examiner, Kim fails to disclose default means for maintaining by default the reset input at a first logic value for ensuring that the counter is maintained at zero in an absence of the control signal. The Examiner cited the Farnworth et al. patent as disclosing this feature of the claimed invention.

In particular, FIG. 6A in Farnworth et al. discloses a die 74 in which a test mode can be initiated therein after it is packaged in the IC module 68 by providing a test mode initiate signal at the terminal 72, and the test mode can then

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be disabled and the die fixed in the operational mode by selectively isolating the function circuit 78 from the terminal with the switching circuit 76, thereby ensuring that the test mode is not accidentally initiated by an end user in the field. The Examiner has taken the position that it would have been obvious to insert the default means (i.e., switching circuit 76, impedance circuit 80 and voltage circuit 82) as disclosed in Farnworth et al. into Kim to selectively disable a test mode to ensure that the test mode is not accidentally entered by a user.

The Applicants submit that modifying Kim to include the default means (i.e., switching circuit 76, impedance circuit 80 and voltage circuit 82) from Farnsworth et al. would destroy the intended operability of Kim. Kim is directed to "providing a test mode setup circuit for a MCU that sets a test mode using only a reset pin and a clock pin." (Column 1, lines 54-56). In other words, Kim provides a test circuit for a MCU without adding a separate test pin.

Modifying Kim in view of Farnsworth et al. would result in an additional pin being required. Reference is directed to column 5, lines 49-58 of Farnsworth et al., which provides:

"To initiate a test mode in the die 74, a switching circuit 76 conducts the test mode initiate signal from the bond pad 72 to a function circuit 78 (e.g., an OE input buffer). In response, the function circuit 78 initiates a test mode in the die 74 as described above. While the test mode initiate signal is being conducted to the function circuit 78, an impedance circuit 80 supports a difference in

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voltages between the test mode initiate signal at the function circuit 78 and an operational mode signal, such as a reference voltage V_{ss} , supplied by an operational mode voltage circuit 82." (Emphasis added.)

The test mode initiate signal is provided to the bond pad 72 from the processor device 66, which is external the die 74. Consequently, if Kim were modified to include the default means as disclosed in Farnsworth et al., then an additional pin for receiving the test mode initiate signal would be required. The Applicants submit that such a modification destroys the intended operability of the Kim patent. Moreover, since Kim is directed to providing a test mode setup circuit for a MCU that sets a test mode using only a reset pin and a clock pin, there is no motivation to modify Kim in view of Farnsworth as suggested by the Examiner.


Accordingly, it is submitted that independent Claim 15 is patentable over Kim in view of Farnsworth et al. Independent Claims 26 and 36 are similar to independent Claim 15. It is submitted that these independent claims are also patentable over Kim in view of Farnsworth et al. In view of the patentability of independent Claims 15, 26 and 36, it is submitted that the dependent claims, which include yet further distinguishing features of the invention are also patentable. These dependent claims need no further discussion herein.

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CONCLUSION

In view of the new claims and the arguments provided herein, it is submitted that all the claims are patentable. Accordingly, a Notice of Allowance is requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,



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CERTIFICATE OF FACSIMILE TRANSMISSION

I HEREBY CERTIFY that the foregoing
correspondence has been forwarded via facsimile number 703-
872-9306 to the Commissioner for Patents on this 4 day of
April, 2005.

Kristen Dranski